

***The Institution of Engineers, Australia; Sydney Division  
Engineering Heritage Committee***

***Oral History Program: Biographical Notes***

**Brian John PEARSON (1927 - )**

**Bridge Engineer**

- Birth & Family:** Born on January 1927 at Epping. Father, an engineer from Adelaide, had moved to Sydney to find work. During the Depression lost his job with the Railways, and moved from Epping to Enmore to run a general store. Later worked for Sydney Water Board until retirement as Chief Designing Engineer. Mother from a poor family and although she topped the Leaving Certificate and gained University entrance, could not attend. She worked at the Sydney Observatory. Two siblings, one brother and one sister.
- Education:** Attended primary school at Lewisham and high school at Ashfield.
- Gained highest possible pass in the Intermediate Certificate and honours in mathematics and "A" passes in other subjects in Leaving Certificate. This result entitled him to free education at Sydney University.
- 1944 - Four year course in Civil Engineering . At the same time studied manual workshop subjects at Sydney Technical College.
- Qualifications:** 1948 - Degree in Civil Engineering.
- Memberships:** RTA Heritage Committee; State representative for ten years on the Structures Committee of the Road Research Board. Member of the NAASRA Bridge Committee.
- Awards:**
- Work History:** ON graduation, joined Department of Main Roads NSW (DMR) as trainee engineer in Bridges Section on 5 February 1948.
- After eighteen months moved to Newcastle Divisional Office, then took appointment as Assistant Engineer at Port Macquarie. A few months later was appointed Officer in Charge at Port Macquarie and remained for four years. (Rapid rise in career was not unusual at the time.) Responsible for 300 men. Also acted in an honorary capacity as Council Engineer for Port Macquarie Council, under instructions from DMR.
- Over the four years he was in charge, he was involved with reconstructing the Pacific Highway between Moorland and Johns River and at Herons Creek, to a standard of forty miles per hour (This was part of the present-day Buckett's Way). His office maintained several ferries with a slipway at Hibbard, at Port Macquarie. Pearson prepared the annual maintenance and construction program.
- 1953 his level of seniority required his transfer to a divisional office for experience as a District Engineer. This was at Deniliquin. *(Is my interpretation correct?)*
- In 1955 he went to the UK and worked for Scott and Wilson, Kirkpatrick and Partners (a well known firm of consulting engineers). Was seconded for two years to the Federation of Rhodesia where the English

Government were investing in road and bridge work. Commenced the design of concrete bridges and supervised construction by contract.

On return to Australia he re-joined the DMR's Bridge Section. There he worked with design engineer Bert Taylor (now principal of Taylor and Herbert Consulting Engineers) on the design of the new roadway for lanes Seven and Eight on the Sydney Harbour Bridge, which replaced the tram lines. His job included supervising the construction work, which was undertaken at night, as well as doing design work by day. The twelve-month deadline for the job was achieved with a day to spare.

Was then placed in charge of construction of all the major Sydney bridges planned over the next five years. These included the new Gladesville Bridge (at the time the largest concrete arch in the world), and the Tarban Creek Bridge, a portal frame and the Huntley's Point overpass, all associated with the Gladesville Bridge. Went on to build the Captain Cook Bridge (a new one to augment Tom Ugly's Bridge) and the Roseville Bridge (both designed in-house by Albert Fried), the Figtree Bridge and others - about two dozen, mostly of major size, during his time at the Metropolitan Bridges section.

On completion of these bridges he was transferred for twelve months to Bega where he was involved in the construction of twelve bridges; While in Bega he also supervised design for the Cahill Expressway extension.

From Bega he returned to the Bridge Section which at the time was responsible for the design, construction and maintenance of all state road bridges. He looked after design for the northern half of New South Wales. Was then appointed Bridge Operations Engineer, a position which he held for several years until appointed Chief Engineer, Bridges with overall responsibility for bridge design work, construction and maintenance and for ferries.

Pearson was involved in the first design for the Glebe Island (Anzac) Bridge a balanced cantilever design – it was practice to produce up to six design schemes for a major new bridge, then select the most economical for construction.

Pearson believes bridges are designed as monuments which may be in place for two hundred years and they should be elegant. To encourage that concept he produced a book called "The Aesthetics of Bridges", for use by RTA designers and consultants, which won a Concrete Institute Award. He was one of only four people worldwide to be asked to submit a paper on bridge appearance to a Washington conference - a prestigious meeting of the American Transport Authorities.

He tried, without success to have the deck height of the Mooney Mooney Bridge, the third balanced cantilever design the Department had built, increased to improve road gradients and save on rock cuttings at the abutments. When construction of the bridge was nearing completion the northern half came close to collapse when it began to swing on its bearings; it was saved by quick action by a contractor who attached a restraining rope to the abutment end..

While investigating the possibility of a Sydney Harbour Tunnel, he was sent to Japan to study tunnels and bridges. Prepared a proposal for a second Sydney Harbour bridge crossing between Balmain and Greenwich but this was abandoned following objections from influential residents, and the Harbour Tunnel was built. Other proposals included a cable stayed bridge from Fivedock to Bedlam Point (Gladesville) and bridges at The Spit and Middle Harbour

Pearson was involved with bridges during a very interesting period of their development. Was responsible for the design and construction of seven hundred bridges, many of which he has not seen.

Retired in 1987 at age 60, when he was DMR Chief Engineer Bridges, a post he held for about ten years.. Since then he has worked for an engineering consultant, undertaking technical assessments, doing some bridge work and acting as a bridge expert for the legal profession and insurance companies.

Is currently writing a book for USA consumption on the design and construction of incremental bridges with Bernhard Goehler of Leonhardt.

Has an interest in motor vehicles and has exhibited his rare turbo-charged CX Citroen in car club exhibitions.

Had four children - three boys and a girl.

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Prepared by : Freda Garnsey, in July 2002, from oral history interviews conducted on